

Simona Rolli

Senior Research Associate
Tufts University, Medford MA 02155

Date and Place of Birth

21 September 1968, Pavia, Italy

Education

- Dottorato di Ricerca (Ph.D.) in Physics, University of Pavia, October 1996;
- Laurea in Physics, University of Pavia, Ghislieri College , score: 110/110 cum laude, June 1992;
- Diploma in Piano (score 8.50/10) Conservatory of Music, Vicenza, Italy.
- Maturita' Classica, Liceo Classico Statale della Repubblica di San Marino, score: 60/60, June 1987

Positions Held

- Senior Research Associate, Tufts University, February 1997-present
- Guest Scientist, Lawrence Berkeley Laboratory, CDF group, January 1996-February 1997
- Visiting Scientist, Fermilab Theory Division, November 1994--November 1995:
- Visiting Scientist, NASA/Fermilab Astrophysics Center, January-September 1994:

Awards and Scholarships

- Admission and stay at the Collegio Ghislieri, Pavia, adjusted on the basis of merit, 1987-1992: (The Collegio Ghislieri is among the eleven University Colleges recognized by the Italian Ministry of University as being academic centres of excellence).
- Italian Minister of University and Research - PhD scholarship awarded on the basis of a public admission exam, for the Academic Year 1992-1993: qualified in the first 10 recipients among 100 candidates. The fellowship was confirmed for the Academic years 1993-1994; 1994-1995;
- Collegio Ghislieri, Pavia, - post graduates studies fellowship - 1996

Experience

Research Activity

- CDF internal referee (Committee Chair) for the following papers:
 - Measurement of V+A Fraction in Top Decay at CDF at $\sqrt{s}=1.8$ TeV
 - Search for ZZ and ZW production in ppbar collisions at $\sqrt{s} = 1.96$ TeV
- Searches for second generation Leptoquarks at CDF Run II
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- Referee of the minireview on Higgs boson production for the 2002 Edition of the RPP (Particle Data Group)
- CDF internal referee for the following paper:
 - Observation of Orbitally Excited B Mesons in ppbar Collisions at $\sqrt{s} = 1.8$ TeV, by CDF Collaboration (T. Affolder et al.). Oct. 1999. Published in Phys.Rev.D64:072002,2001
 - Search for the charged Higgs boson in the decays of top quark pairs in the e tau and muon tau channels at $\sqrt{s} = 1.8$ -TeV, by CDF Collaboration (T. Affolder et al.). Dec. 1999. Published in Phys.Rev.D62:012004,2000
 - Measurement of the top quark mass and t anti-t production cross-section from dilepton events at the collider detector at Fermilab. by CDF Collaboration (F. Abe et al.). Sep 1997.. Published in Phys.Rev.Lett.80:2779-2784,1998
 - The mu tau and e tau decays of top quark pairs produced in p anti-p collisions at $\sqrt{s} = 1.8$ -TeV, by CDF Collaboration (F. Abe et al.). Apr 1997. Published in Phys.Rev.Lett.79:3585-3590,1997
- Phenomenology of vector bosons and jet production at TeVatron
- Gluon radiation studies and its implication in the determination of the correct jet energy scale used to measure the top quark mass
- Studies on fragmentation phenomena in pQCD
- Studies of phase transitions in the early universe

Management Activity

- Co-convenor of the "Beyond the Standar Model (BSM) " Working Group, for the International Workshop on Physics at TeV Colliders to be held at Les Houches, May 2005.
- Co-organizer of the 2004 Annual User Meeting held at Fermilab, June 2-3 2004
- Co-convenor of the "Physics at highest Q^2 and p_T^2 " Working Group, for the International Workshop on Deep Inelastic Scattering (DIS2002). Krakow, 30th April - 4th May 2000
- Co-leader of the CDF Exotics Physics working group (January 2001-December 2002)

- Co-leader of the CDF LLS workgin group, November 2000 – Summer 2001;
- Co-leader of the CDF High Level Objects working group (Jan 2000 - Dec 2000):
- Co-leader of the CDF Exotic triggers and datasets working group (April 98- Dec 2000);;
- Project leader for L1/L2 hardware trigger simulation, TRGSim++ for CDF Run II (June 99 - present)

Computing

- CDF II trigger simulation
- The CDF EventNtuple
- Data handling solutions for large volumes of data:
- Internal referee for the Aravis-Design document (ATLAS) - November 1998

Collaborations

- Member of the CDF collaboration, Fermilab, Batavia, IL, USA
- Member of the ATLAS collaboration, CERN, Geneva, Switzerland
- Member of the RD55 collaboration, CERN, Geneva, Switzerland, working on models for networked analysis of data at regional centres.
- Member of the RD45 collaboration, CERN, Geneva, Switzerland: study of data handling solutions and persistent object managers for large volumes of data using object oriented database systems:

Miscellanea

- Elected Member of the Fermilab User Executive Committe, August 2003-August 2005
- Co-Dean of Tev University at Fermilab for the Academic Year 1999-2000, 2000-2001;2001-2002;2002-2003
- Supervision of PhD students and a summer student at Fermilab (Summer 1999-present)

References

Prof. Young Kee Kim,

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